

WE CLAIM:

1. A polyethylene plexifilamentary fiber strand having a surface area of less than  $10 \text{ m}^2/\text{g}$  and a crush value of at least  $1 \text{ mm/g}$ .

5 2. The plexifilamentary fiber strand of claim 1 wherein the surface area of the strand is less than  $8 \text{ m}^2/\text{g}$ .

3. The plexifilamentary fiber strand of claim 1 wherein the surface area of the strand is less than  $5 \text{ m}^2/\text{g}$ .

4. The plexifilamentary fiber strand of claim 1 wherein the crush value of the strand is at least  $1.5 \text{ mm/g}$ .

10 5. A nonwoven sheet comprised of substantially ~~continuous polyethylene~~ plexifilamentary fiber strands and having a Frazier Permeability, normalized to  $1.0 \text{ oz/yd}^2$  basis weight, of at least  $2 \text{ cfm/ft}^2$ .

15 6. A nonwoven sheet comprised of substantially continuous polyethylene plexifilamentary fiber strands and having a hydrostatic head of at least  $110 \text{ cm}$  and a Gurley Hill Porosity of less than 6 seconds.

7. The nonwoven sheet of claim 5 having a hydrostatic head of at least  $30 \text{ cm}$ .

8. The nonwoven sheet of claim 5 having a hydrostatic head of at least  $45 \text{ cm}$ .

20 9. The nonwoven sheet of claim 5 having a hydrostatic head of at least  $75 \text{ cm}$ .

10. The nonwoven sheet of claim 5 having a hydrostatic head of at least  $85 \text{ cm}$ .

25 11. The nonwoven sheet of claim 5 having a hydrostatic head of at least  $100 \text{ cm}$ .

12. The nonwoven sheet of claim 5 having a hydrostatic head of at least  $130 \text{ cm}$ .

14. The nonwoven sheet of claim 7 having a Frazier Permeability, normalized to 1.0 oz/yd<sup>2</sup> basis weight, of at least 8 cfm/ft<sup>2</sup>.

5                    15.     The nonwoven sheet of claim 7 having a Frazier Permeability, normalized  
to 1.0 oz/yd<sup>2</sup> basis weight, of at least 10 cfm/ft<sup>2</sup>.

16. The nonwoven sheet of claim 7 having a Frazier Permeability, normalized to 1.0 oz/yd<sup>2</sup> basis weight, of at least 15 cfm/ft<sup>2</sup>.

17. The nonwoven sheet of claim 7 having a Frazier Permeability, normalized  
10 to 1.0 oz/yd<sup>2</sup> basis weight, of at least 20 cfm/ft<sup>2</sup>.

18. The nonwoven sheet of claim 7 having a Frazier Permeability, normalized to 1.0 oz/yd<sup>2</sup> basis weight, of at least 25 cfm/ft<sup>2</sup>.

19. The nonwoven sheet of claim 7 wherein the sheet is a unitary fibrous sheet.

15                    20.    A through-air bonded polyethylene plexifilamentary non-woven sheet.

21. The nonwoven sheet of claim 5 wherein said sheet has a whole surface bonded portion of a first side of the sheet and a point bonded portion on the second side of the sheet, said point bonded portion of the sheet comprising at least 50% by weight of the nonwoven sheet.

20                    22.     The nonwoven sheet of claim 21 wherein the point bonded portion of the  
sheet comprises at least 60% by weight of the nonwoven sheet.

23. The nonwoven sheet of claim 22 wherein the point bonded portion to the sheet is bonded with a ribbed bonding pattern and the whole surface bonded portion of the sheet is bonded with a linen pattern.

25                    24.    A garment comprised of the nonwoven sheet of claim 7.

25. Filter media comprised of the nonwoven sheet of claim 7 or claim 20.

26. A vacuum bag comprised of the nonwoven sheet of claim 5 or claim 20.

27. A pillow cover comprised of the nonwoven sheet of claim 5,

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